Claims:

1. Process to prepare the active material from *Antrodia camphorata* mycelium, which includes the following procedures:

(1) Plate Culture: Seed mycelium on plate and maintain at 30℃ for two weeks;

(2) Beaker Culture: collect fungus grown on plate to put in beaker. Use the following culture medium at about 30℃ and pH 4.5 with vibrator operation at 50-250 rpm until initial log period, i.e. About 5-7 days;

Culture Medium Formula

Components	Content (weight %)
Cereals (like flour)	1
Egg white	0.1
Magnesium Sulfate	0.05
Potassium hydrogenphosphate	0.05
Ferric Sulfate	0.05
Sucrose	2
Enzyme Extract, Powder, paste	0.5
Beans (like soy bean powder, green bean powder etc.)	0.2

(3) Fermentation Tank Culture: Transfer the cultured species to fermentation tank containing culture medium (same as that in beaker). Perform culturing for about 10 days at 30 °C, a tank pressure of 0.5-1.0 kg/cm^2, pH below 4.5, with input of air at 150 liter/minute, under agitation at 200 rpm to obtain suspension culture solution for *Antrodia camphorata* mycelium containing mycelium and supernatant;

(4) Centrifuge the solution from step (3) to separate out mycelium and supernatant;

(5) Use solvents to extract the biologically active material.

2. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the mycelium is the *Antrodia camphorata* mycelium registered as CCRC 35398 and stored in Culture Collection and Research Center of Food Industry Research and Development Institute, Hsinchu, Taiwan, R.O.C.

3. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the mycelium is the *Antrodia camphorata* mycelium registered as CCRC 35396 and stored in Culture Collection and Research Center of Food Industry Research and Development Institute, Hsinchu, Taiwan, R.O.C.

4. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the separation procedures include separation of the culture suspension into solid mycelium and culture supernatant, followed by solvent extraction for the said mycelium, followed by the combination of the said extract and the supernatant, followed by the precipitation of the active material.

5. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the extraction solvent is water and extraction temperature is 30°C to 121°C.

6. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the separation procedures include direct heating of culture suspension at 30°C to 121°C, followed by precipitation and separation of the active material.

7. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the biologically active material is derived from the entire culture suspension for *Antrodia camphorata* mycelium.

8. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the biologically active material is derived from the

entire culture suspension for supernatant.

9. As described in Claim 1 for a process to produce active material from *Antrodia camphorata* mycelium, wherein the biologically active material is derived from the entire culture suspension for mycelium extract.

10. A kind of biologically active material from *Antrodia camphorata* mycelium, which is derived after culturing of *Antrodia camphorata* mycelium with the characteristic of significant amount of polysaccharides inside.

11. A composition that contains the biologically active material from *Antrodia camphorata* mycelium as in Claim 10.

12. As described in Claim 11 for the biologically active material from *Antrodia camphorata* mycelium, which can stimulate the increase of lymphocytic increase, promote the formation of IL-2 of Th1-type cytokine and provide inhibition to the formation of IL-4 of Th2-type cytokine, and stimulate and activate macrophage as well.